

Serial No.: 10/716,563
Docket No.: 102-1011
Amendment After Final dated: November 16, 2007
Reply to the Final Office Action of September 18, 2007

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An image forming apparatus, comprising:
 - a developing unit to transfer a toner ;
 - a toner supplying unit to transfer the toner to the direction of the developing unit to be formed in a fur brush shape; and
 - a cleaning unit disposed at a position opposite to a nip with respect to a rotating axis of the toner supplying unit to remove from the toner supplying unit the toner,
wherein the cleaning unit is formed as a cleaning roller to be in pressing contact with the toner supplying unit with a predetermined pressure to form a second nip with the toner supplying unit.
2. (Previously Presented) The image forming apparatus of claim 1, wherein the toner supplying unit is formed in a fur brush shape having a cylinder and a fur made of nylon or acryl and attached to the cylinder.
3. (Previously Presented) The image forming apparatus of claim 2, wherein the fur is approximately 5~15 deniers thick and approximately 1.0~1.5mm long.
4. (Previously Presented) The image forming apparatus of claim 2, wherein the cleaning unit is formed of a strong bar of a cylindrical shape.
5. (Cancelled)
6. (Previously Presented) The image forming apparatus of claim 1, further comprising:

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a toner controlling blade to form the toner supplied to the developing unit into a regularly thin film.

7. (Currently Amended) A developing unit used with an image forming apparatus having a photoconductive medium, comprising:

a toner receptacle to store a toner;

a developing unit to transfer the toner;

a toner supplying unit to transfer the toner to the direction of the developing unit, wherein the toner supplying unit is formed in a fur brush shape,

wherein the toner supplying unit comprises a cylinder and a fur attached to a surface of the cylinder in a radial direction of the cylinder; and

a cleaning unit is disposed to be spaced-apart from the surface of the cylinder by a second predetermined distance to remove the toner from the toner supplying unit by shaking the fur of the cylinder, then cleaning unit comprising a cylindrical member having an outer surface disposed to contact the fur of the toner supplying unit.

8. (Currently Amended) The developing unit of claim 8~~7~~, wherein the cleaning unit shakes off the toner remaining on a surface of the toner supplying unit.

9. (Previously Presented) The developing unit of claim 8, wherein the cleaning unit shakes a portion of the toner supplying unit.

10. (Previously Presented) The developing unit of claim 7, wherein the cleaning unit is disposed in a direction parallel to a rotation axis of the toner supplying unit.

11. (Previously Presented) The developing unit of claim 7, wherein the toner supplying unit comprises fur disposed around an outer circumference thereof and the cleaning unit contacts a portion of the toner supplying unit to shake the portion of the toner supplying unit when the toner supplying unit rotates with respect to the cleaning unit, so that the toner attached to the fur of the toner supplying unit is removed.

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12. (Previously Presented) The developing unit of claim 7, wherein the cleaning unit pushes a portion of the toner supplying unit with respect to the developing unit.

13. (Previously Presented) The developing unit of claim 7, wherein the cleaning unit pushes the toner supplying unit with respect to the toner receptacle.

14. (Previously Presented) The developing unit of claim 7, wherein the toner supplying unit comprises a cylinder and a fur attached to the cylinder, and the cleaning unit is disposed to contact the fur of the toner supplying unit and shakes the fur of the toner supplying unit when the toner supplying unit rotates.

15. (Cancelled)

16. (Currently Amended) The developing unit of claim ~~7~~8, wherein the ~~second~~
predetermined distance is equal to or less than ~~the first distance~~a length of the fur.

17. (Cancelled)

18. (Currently Amended) The developing unit of claim ~~47~~16, wherein the outer surface of the cylindrical member is spaced-apart from the surface of the cylinder by a ~~third~~
another predetermined distance which is equal to or less than the ~~first distance~~length of the fur.

19. (Previously Presented) The developing unit of claim 17, wherein the cleaning unit is disposed to contact the fur of the toner supplying unit and shakes the fur when the toner supplying unit rotates, so that the toner attached to the fur is removed.

20. (Previously Presented) The developing unit of claim 17, wherein the cleaning unit is stationary, and the fur of the toner supplying unit contacts the cleaning unit while rotating

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together with the cylinder of the toner supplying unit.

21. (Currently Amended) A developing unit used with an image forming apparatus having a photoconductive medium, comprising:

a toner receptacle to store a toner;

a developing unit to transfer a toner;

a toner supplying unit to transfer a toner to the direction of the developing unit to be formed in a fur brush shape; and

a cleaning unit to remove the toner from the toner supplying unit,

wherein the toner supplying unit is rotatable, and the cleaning unit is stationary and immobile.

22. (Previously Presented) The developing unit of claim 8, wherein the cleaning unit is disposed to contact the toner remaining on a surface of the toner supplying unit.

23. (Currently Amended) An image forming apparatus comprising:

a photoconductive medium; and

a developing unit comprising,

a toner receptacle to store a toner,

a developing unit to transfer the toner,

a toner supplying unit having fur disposed around a circumference thereof to transfer the toner to the direction of the developing unit, wherein the toner supplying unit is formed in a fur brush shape, and

a stationary and immobile cleaning unit to shake the fur of the toner supplying unit to remove the toner from the toner supplying unit.

24. (Cancelled)

25. (Cancelled)

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26. (Previously Presented) The image forming apparatus of claim 1, further comprising:

a developing unit frame to support the developing unit to be rotatable, and having a toner receptacle to store the toner.

27. (Previously Presented) The image forming apparatus of claim 1, wherein the developing unit is rotatably mounted in the image forming apparatus to contact the photoconductive medium.

28. (Previously Presented) The image forming apparatus of claim 1, wherein the toner supplying unit rotates in contact with the developing unit to form a predetermined nip with the developing unit.

29. (Previously Presented) The image forming apparatus of claim 1, wherein the nip defined between the developing unit and the toner supplying unit is approximately 0.2~0.5mm.

30. (Currently Amended) The image forming apparatus of claim 1, wherein the cleaning unit is ~~formed as a cleaning roller to be supported by the~~ a toner receptacle, which supplies the toner to the developing unit ~~to be in pressing contact with the toner supplying roller with a predetermined pressure to form a predetermined second nip with the toner supplying roller.~~